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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/812,482	03/30/2004	Karl-Heinz Wienand	927-90US (P10172US)	3272

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PHILADELPHIA, PA 19103-7013

EXAMINER	
VERBITSKY, GAIL KAPLAN	
ART UNIT	**PAPER NUMBER**
2859	

DATE MAILED: 03/24/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/812,482	WIENAND ET AL.	
	Examiner	Art Unit	
	Gail Verbitsky	2859	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-13* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 and 4* is/are rejected.

7)☒ Claim(s) *2-3 and 5-13* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *3/30/2004*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Objections

1. Claims 1-13 objected to because of the following informalities:

Claim 1: Perhaps applicant should insert –conduit—before "section" in line 2 for a proper antecedent basis,

Claims 2-13: "Claim" in line 1 should be replaced with –claim—because only the first letter of the claim can be capitalized. Appropriate correction is required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. Claims 1, 4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sidoni (U.S. 6814486) in view of Betzner et al. (U.S. 6588931) [hereinafter Betzner] Wadn et al. (U.S. 6626037) [hereinafter Wadn].

Sidoni discloses in Figs. 5-6 a device 10 to be mounted to a tube 28 having a conduit section wherein, the device has an opening for the conduit section to go through. The device comprises a temperature sensor, inherently, comprising a temperature sensing element, the temperature sensor is mounted in a mounting well of the device 10.

Sidoni does not explicitly disclose the temperature sensor element, as claimed by applicant.

Betzner discloses in Figs. 2, 6 a device for determining temperature of a flowing fluid (coolant in an exhaust pipe, col. 1, lines 14-15). The device comprises a temperature sensor that includes a substrate 14 and a sensor circuit 16 having a thermistor (temperature sensing element) 22 and electrical traces arranged on the substrate and electrical leads/ strips (crimp terminals) 12, 18 electrically and mechanically (crimped) connected to the traces and thus, to the thermistor 22. The device also comprises a plastic molded housing 25 having an opening, as shown in Fig. 6, the housing 25 is arranged substantially around the leads/ strips 12, 18 in a region between their first ends (distal end) and second ends (proximal end, as shown in Fig. 6. the device has a form of a plug and is designed to be connected to an electrical connection external cable (col. 3, lines 30-31).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to replace the temperature sensor, disclosed by Sidoni, with the device for determining temperature as taught by Betzner, because both of them are alternate types of temperature sensing devices which will perform the same function, of sensing the temperature of the tubular device, if one is replaced with the other.

Betzner does not explicitly teach that the substrate is a ceramic substrate, and that the sensing element (thermistor) is a thin-film resistor.

With respect to using the particular material for substrate, i.e., ceramic material, the use of the particular material, i.e., ceramic material, as stated in claim 1, for the substrate, absent any criticality, is only considered to be the "optimum" material that a person having ordinary skill in the art at the time the invention was made using routine experimentation would have found obvious to provide for the probe element disclosed by Sidoni and Betzner since it has been held to be a matter of obvious design choice and within the general skill of a worker in the art to select a known material on the basis of its suitability for the intended use of the invention. In re Leshin, 125 USPQ 416. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the temperature sensor, disclosed by Sidoni and Betzner, so as to have a ceramic substrate, in order to provide the device with necessary support and thermal and electrical insulation.

Wadn discloses a thermal flow sensor comprising a substrate and a temperature sensing thin film.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the temperature sensing element, disclosed by Sidoni, so as to have a thin film temperature sensing element, as taught by Wadn, so as to minimize the size of the device.

With respect to the preamble of claims: the preamble of the claims does not provide enough patentable weight because it has been held that a preamble is denied the effect of a limitation where the claim is drawn to a structure and a portion of the claim following the preamble is a self-contained description of the structure not depending for

completeness upon the introductory clause. Kropa v. Robie, 88 USPQ 478 (CCPA 1951).

Allowable Subject Matter

4. Claims 2-3, 5-13 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

5. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The prior art cited in the PTO-892 and not mentioned above disclose related devices and methods.

Any inquiry concerning this communication should be directed to the Examiner Verbitsky who can be reached at (571) 272-2253 Monday through Friday 8:00 to 4:00 ET.

GKV

Gail Verbitsky
Primary Patent Examiner, TC 2800

March 09, 2005